

# Cat<sup>®</sup> 797F

## Off-Highway Trucks



### Specifications

#### Engine

Engine Model	Cat <sup>®</sup> C175-20 ACERT <sup>™</sup>	
Gross Power - SAE J1995	2983 kW	4,000 hp
Bore	175 mm	6.9 in
Stroke	220 mm	8.7 in
Displacement	106 L	6,469 in <sup>3</sup>

- Power ratings apply at 1750 RPM when tested under the specific conditions for the specified standard
- Ratings based on SAE J1995 standard air conditions of 25°C (77°F) and 99 kPa (29.32 Hg) barometer. Power based on fuel having API gravity of 35 at 16°C (60°F) and an LHV of 42 780 kJ/kg (18,390 BTU/lb) when engine used at 30°C (86°F).
- No LAA engine derating required up to 1 372 m (4,500 ft) altitude
- No HAA engine derating required up to 4 573 m (15,000 ft) altitude
- Compliant with U.S. Environmental Protection Agency Tier II emissions standards

#### Weights - Approximate

Gross Machine Operating Weight	623 690 kg	1,375,000 lb
Body Weight Range	41 368 - 61 235 kg	
Chassis Weight Range	210 630 kg - 219 146 kg	

- Body weight varies depending on how body is equipped. Weight range for known applications.
- Chassis weight with hoist, body mounting group and tires

#### Operating Specifications

Nominal Payload Capacity	345 - 363 tonnes 380 - 400 tons	
Minimum Payload Capacity	345 tonnes	380 tons
Maximum Payload Capacity	363 tonnes	400 tons
Top Speed - Loaded	67.6 km/h	42 mph
Steer Angle	40 Degrees	
Machine Clearance Turning Diameter	42.1 m	138.12 ft

- Refer to the Caterpillar Mining Truck 10-10-20 payload policy for maximum gross machine weight limitations

#### Transmission

Forward 1	11.3 km/h	7 mph
Forward 2	15.2 km/h	9.5 mph
Forward 3	20.5 km/h	12.7 mph
Forward 4	27.7 km/h	17.2 mph
Forward 5	37.2 km/h	23.1 mph
Forward 6	50.3 km/h	31.2 mph
Forward 7	67.6 km/h	42 mph
Reverse	12.9 km/h	8 mph

#### Final Drives

Differential Ratio	1.265:1
Planetary Ratio	16.67:1
Total Reduction Ratio	21.09:1

- Double-reduction, planetary, with full floating axles

#### Suspension

Effective Cylinder Stroke - Front	313.6 mm	12.3 in
Effective Cylinder Stroke - Rear	165.1 mm	6.5 in
Rear Axle Oscillation	+/- 4.0°	

#### Brakes

Number of Discs Per Side - Front	10	
Number of Discs Per Side - Rear	15	
Outside Diameter	1067 mm	42 in
Brake Surface	330 517 cm <sup>2</sup>	51,243 in <sup>2</sup>
Standards	J-ISO 3450 JAN88, ISO 3450-1996	

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- Maximum operating weight up to 623 690 kg (1,375,000 lb)

## Body Hoists

Pump Flow - High Idle	1200 L/min	317 gal/min
Relief Valve Setting - Raise	24 200 kPa	3,510 psi
Body Raise Time - High Idle	24 Seconds	
High Idle Body Lower Time - Float	18.5 Seconds	
High Idle Body Lower Time - Power	17.3 Seconds	

- Twin, two-stage hydraulic cylinders mounted outside main frame
- Power raise in both stages; power down in first stage
- Automatic body-lower modulation reduces impact on frame

## Weight Distributions - Approximate

Front Axle - Empty	43.5 %
Rear Axle - Empty	56.5 %
Front Axle - Loaded	33.3 %
Rear Axle - Loaded	66.7 %

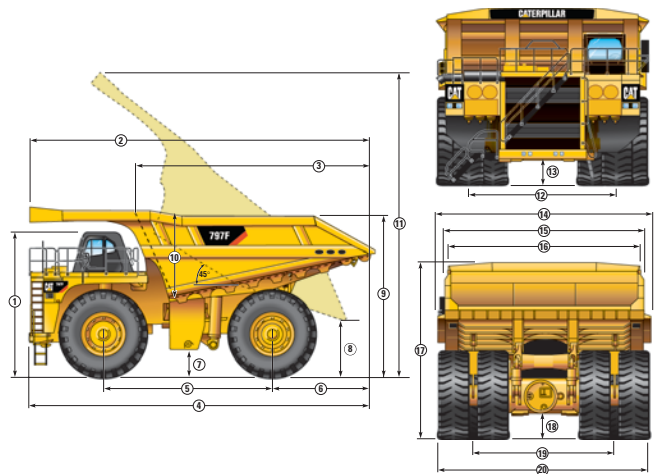
## Capacity - MSD II - 100% fill factor

Struck	188 m <sup>3</sup> - 214 m <sup>3</sup>
	247 yd <sup>3</sup> - 280 yd <sup>3</sup>
Heaped (SAE 2:1)	240 m <sup>3</sup> - 267 m <sup>3</sup>
	315 yd <sup>3</sup> - 350 yd <sup>3</sup>

- Contact your local Caterpillar dealer for truck body recommendation.

## Service Refill Capacities

Fuel Tank	7571 L	2,000 gal
Cooling System	1194 L	315 gal
Crankcase	519 L	137 gal
Front Wheels, Each	61 L	16 gal
Final Drivers, Each	185 L	49 gal
Differentials	1176 L	311 gal
Steering Tank	210 L	55 gal
Steering System (Includes Tank)	432 L	114 gal
Brake/Hoist System (Includes Tank)	1842 L	486 gal
Brake/Hoist Tank	830 L	219 gal
Torque Converter Sump	303 L	80 gal
Torque Converter/Transmission System (Includes Sump)	629 L	166 gal



## Dimensions

All dimensions are approximate.  
Dimensions are with standard body 290-6420.

1	Height to Top of ROPS – Empty	6526 mm	21 ft 5 in
2	Overall Body Length	14 802 mm	48 ft 7 in
3	Inside Body Length	9976 mm	48 ft 7 in
4	Overall Length	14 850 mm	48 ft 9 in
5	Wheelbase	7195 mm	23 ft 7 in
6	Rear Axle to Tail	3944 mm	12 ft 11 in
7	Loaded Ground Clearance	786 mm	2 ft 7 in
8	Dump Clearance	2017 mm	6 ft 7 in
9	Loading Height – Empty	6998 mm	23 ft 0 in
10	Inside Body Depth – Maximum	3363 mm	11 ft 0 in
11	Overall Height – Body Raised	15 701 mm	51 ft 6 in
12	Centerline Front Tire Width	6534 mm	21 ft 5 in
13	Engine Guard Clearance – Loaded	1025 mm	3 ft 4 in
14	Overall Canopy Width	9116 mm	29 ft 11 in
15	Outside Body Width	9755 mm	32 ft 0 in
16	Inside Body Width	8513 mm	27 ft 11 in
17	Front Canopy Height – Empty	7709 mm	25 ft 4 in
18	Rear Axle Clearance – Loaded	947 mm	3 ft 1 in
19	Centerline Rear Dual Tire Width	6233 mm	20 ft 5 in
20	Overall Tire Width	9529 mm	31 ft 3 in

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